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**Defending the High Ground: How should Pacific Command's Theater Campaign Plan
evolve in light of the Peoples' Republic of China counterspace initiatives?**

by

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**A paper submitted to the Faculty of the Naval War College in partial satisfaction of the
requirements of the Department of Joint Military Operations.**

**The contents of this paper reflect my own personal views and are not necessarily endorsed
by the Naval War College or the Department of the Navy.**

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Abstract

Defending the High Ground: How should USPACOM's Theater Campaign Plan evolve in light of the People's Republic of China (PRC) counterspace initiatives?

While not a direct threat, the current rate and scope of the People's Republic of China's modernization does challenge Pacific Command (USPACOM) theater campaign planners. The current USPACOM strategy is predicated on the need for Partnership, Presence, and Readiness. Given the critical nature of the space domain to USPACOM, the command requires a space superiority framework consisting of enhanced military-space to military-space relations, a new organizational construct for U.S. Strategic Command to support USPACOM as well as an advanced training construct designed to increase USPACOM readiness. Analysis indicates that these three areas while making independent progress at varying rates lack a common framework to achieve integrated and sustained progress in meeting the intent of Commander, USPACOM. Consequently, a space superiority framework is required to synchronize space operations efforts in USPACOM theater campaign plan's primary lines of operation--Partnership, Presence, and Readiness.

INTRODUCTION

The ability to operate in and through the space domain remains a vital national interest of the United States.¹ In fact, the current National Space Policy states “freedom of action in space is as important to the United States as air power and sea power.”² Like air power and sea power, the ability to operate in the space domain does not go unchallenged. Since 2000, the Congress of the United States directed the Department of Defense to produce “an annual report on the military power of the People’s Republic of China.”³ The report highlights the development of and modernization of the People’s Republic of China (PRC) military, to include PRC development of “counterspace activities” which are defined as “a multi-dimensional program to improve its capabilities to limit or prevent the use of space-based assets by potential adversaries.”⁴ In 2009 testimony to the Senate Select Committee on Intelligence, the Director of National Intelligence also echoed a concern over Chinese counterspace development when he said “counterspace systems. . .rank among the countries highest military priorities.”⁵

Like all geographic combatant commanders, U. S. Pacific Command’s (USPACOM) ability to operate in all domains--air, land, sea, and space--remains critical to success across the range of military operations. USPACOM is also challenged with

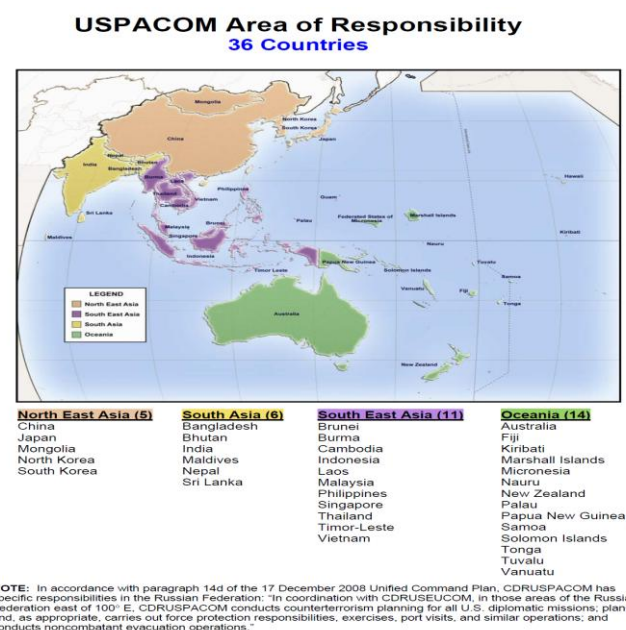


Figure 1 USPACOM AREA OF RESPONSIBILITY⁶

the task of integrating a rising China while maintaining vital U.S. interests.

Commander, USPACOM recently published a comprehensive strategy that serves as direction for theater campaign planning. Theater campaign planning serves to “. . .translate national or theater strategy into operational concepts”.⁷ To focus planning at all levels, the primary lines of operation within USPACOM’s strategy are Partnership, Presence and Readiness.⁸ In order to meet the intent of our National Space Policy, space superiority planning must be accomplished in USPACOM and guided by the Commander, USPACOM established lines of operation. Any less of an effort disconnects USPACOM efforts from established national policy.

Why space superiority? Superiority in any domain allows freedom of movement and maneuver but comes with an associated level of effort over time. Nations’ militaries seek to limit superiority through anti-access based strategies.⁹ Figure 2 illustrates the relationship between superiority in a domain, like space superiority, and anti-access to a domain, like PRC counterspace activities.

With the backdrop of the

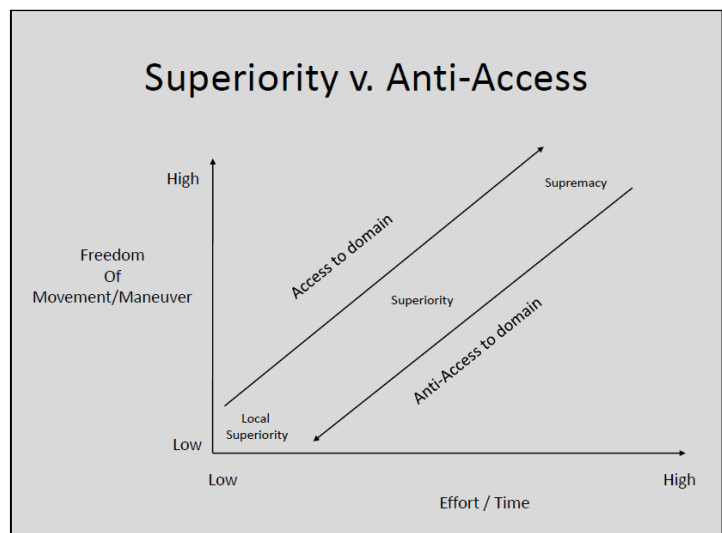


Figure 2 Domain Superiority v. Anti-Access¹⁰

continuing development of PRC counterspace initiatives and our nation's National Space Policy coupled with the need to maintain access to the space domain across the Pacific, USPACOM's theater campaign plan should integrate a space superiority framework consisting of military space to military space relationships, a new

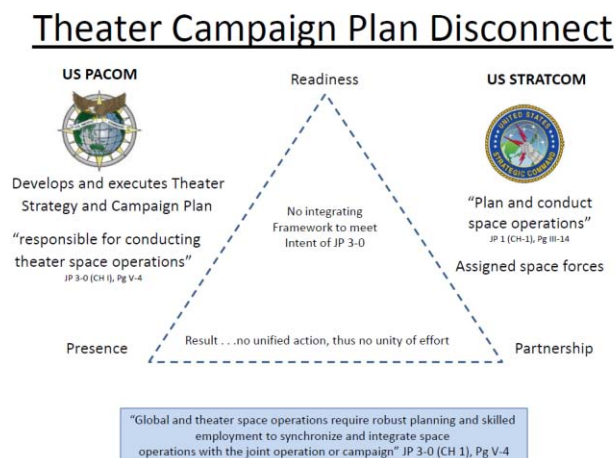


Figure 3 Theater Campaign Plan Disconnect¹¹

US STRATCOM support to USPACOM and an advanced training construct designed to increase USPACOM readiness. The space superiority framework would serve as an integrating framework to close the disconnect between combatant commanders during campaign planning (See figure 3)—a disconnect that must be closed to link the theater campaign plan to all domains—air, land, sea, and space. Without the framework, the campaign plan is incomplete.

A space superiority framework would also serve to foster unified action between combatant commands—unified action that produces unity of effort and better supports the geographic combatant commander's strategy. The framework also would allow USPACOM to mitigate the impact of operational factors of space and time in an area of responsibility encompassing a majority of the world. Finally, a space superiority framework would give the commander options and enable the joint force to effectively apply operational functions across the range of military operations.

The scope of this research is limited to the initial efforts of framework development. The research effort does not analyze countries outside of Australia and Japan. Efforts to integrate

space operations with these nations have occurred in one form or another at various levels of military and government activities. Yet, the efforts to date do not constitute a part of a larger space superiority framework designed to support Commander, USPACOM strategy.

DISCUSSION

The military rise of the PRC over the last twenty years remains critical to understanding the need for a space superiority framework. Over the last two decades, Jiang Zemin stands out as the seminal figure in the rise of the PRC military.¹² As illustrated in Figure 4, Jiang Zemin's influence in key positions and length of service in office contributed to his impact.

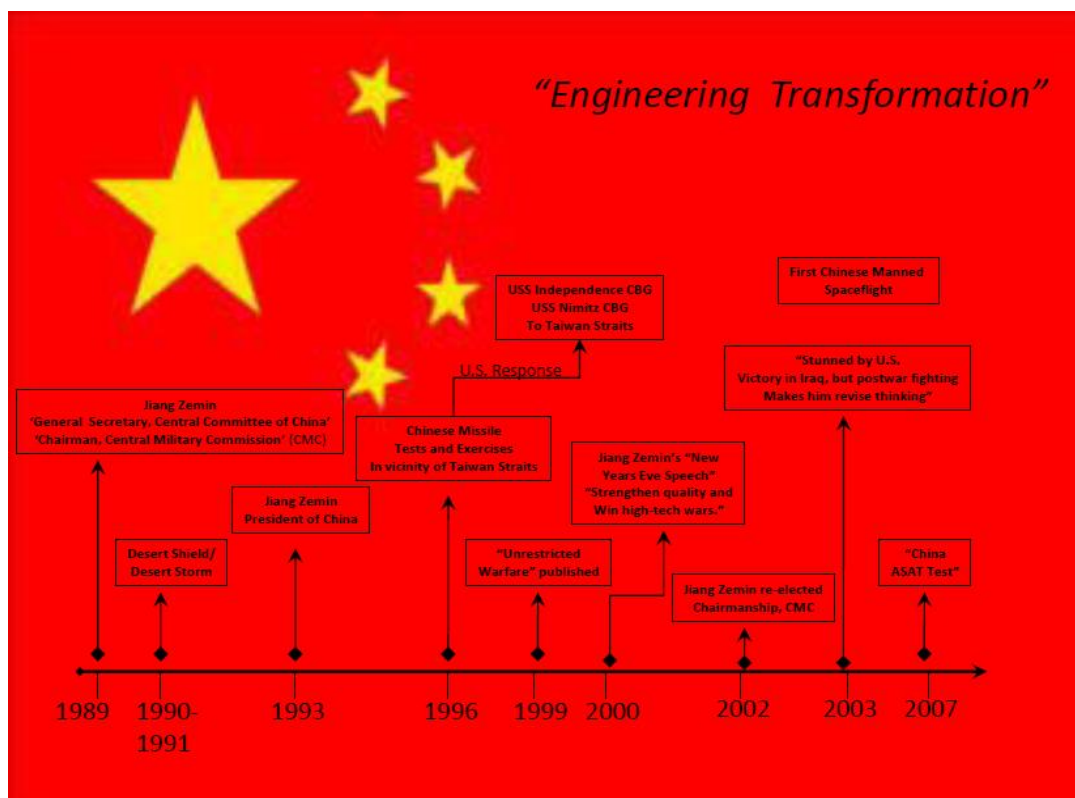


Figure 4 Engineering Transformation¹³

Most importantly, Jiang Zemin developed a plan for the People's Liberation Army (PLA) modernization and remained in power long enough to see it completed.¹⁴ Reported by the

Department of Defense in 2009, the military transformation consists of “. . .the ability to jam, blind, or otherwise disable satellites and their terrestrial support infrastructure.”¹⁵

Partnership, an integral element of Commander USPACOM’s theater campaign plan, underpins security cooperation across the Pacific. Partnership remains vital to effective operations across all domains. Within the Pacific region, two efforts to enhance partnership, the Australia-United States Ministerial (AUSMIN)¹⁶ and the Trilateral Strategic Dialogue (TSD)¹⁷, are either in the initial stages of military space to military space partnership (AUSMIN) or provide promise for being an effective vehicle to broaden (TSD) the partnership among nations with military space efforts.

AUSMIN serves as the primary strategic vehicle for “bilateral consultations. . . consultations provide a major opportunity to discuss and share perspectives and approaches on major global and regional political issues, and to deepen bilateral foreign security and defence cooperation.”¹⁸ In an interview with Mr. Joseph Rouge, Director, National Security Space Office, Office of the Secretary of Defense, Mr. Rouge noted “there has been considerable progress with the Australians through AUSMIN.”¹⁹ In fact, a recent communiqué released by the Department of State stated “the two countries noted efforts to advance their military satellite communications partnership and discussed proposals to improve mutual capabilities in support of U.S. and Australian deployed forces.”²⁰ The communiqué also noted “the United States and Australia underscored the continued importance of trilateral cooperation with Japan, through the Trilateral Strategic Dialogue [TSD].”²¹

The TSD is an effort to “link the two strongest security partners in the Pacific, Japan and Australia.”²² The current focus of the TSD efforts is “counter-terrorism and maritime

security.”²³ Within the framework of TSD, however, opportunities exist to expand U.S.-Australian-Japanese military to military relationships to include space operations.

As noted earlier, AUSMIN already serves as a diplomatic and defense vehicle to enhance military to military space relationships. To date, however, TSD does not include military space to military space relationships as an effort. With a recent change in Japanese law and policy however, TSD serves as a likely arena for development of military space to military space relationships.²⁴ For example, in July of 2009, the policy of Japan’s defense forces changed “for the first time. . .Japan recognizes the need to develop space-based systems specifically for military purposes.”²⁵ How the U.S. government approaches this opportunity through the TSD remains critical to Pacific Command and space superiority in the Pacific.

U.S. Strategic Command (USSTRATCOM) is a critical partner for theater security development in the Pacific. USSTRATCOM is a functional combatant command with authority and responsibility for a variety of mission areas to include space operations. Yet USSTRATCOM, unlike other functional commands such as Special Operations Command (SOCOM), chose to establish consolidated organizations within USSTRATCOM. The varieties of missions and

organizational structures established by USSTRATCOM have often led to challenges. For example, the

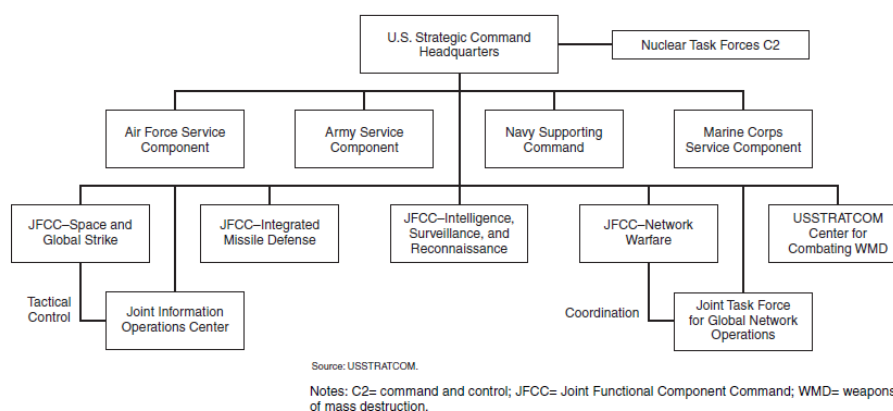


Figure 5 U.S. STRATCOM Organization²⁶

Government Accountability Office noted in a report to Congress that “providing coordinated, consistent outreach to other DOD organizations, such as combatant commands, has become more difficult since USSTRATCOM established separate subordinate organizations for several of its missions.”²⁷

Figure 5 illustrates the organizational architecture of USSTRATCOM as published in 2005. Today, the organizational structure of USSTRATCOM remains much the same and subject to critical comment. In December 2008, for example, the Schlesinger report to the Secretary of Defense noted “. . . a gap in the seam between USSTRATCOM and the Geographic Combatant Commanders (GCCs) in planning and C2 of interregional and global operations.”²⁸ To date, USSTRATCOM’s efforts to re-organize remain internally focused.

Like USSTRATCOM, USSOCOM, a functional combatant command, has vital responsibilities in support of geographic combatant commanders. However USSOCOM integrates with geographic combatant commanders through an established organizational framework in theater where “each [geographic combatant command] has a theater specific Special Operations Command to support his Special Operations logistics, planning, and operational control requirements.”²⁹ At its inception, SOCOM leadership identified “the main focus. . . to provide special operations support to the CINCs of five disparate and divergent theaters as well as to be prepared to conduct, on rare occasions, unilateral special operations at national direction.”³⁰ Furthermore, SOCOM expanded efforts “of determining the full nature of . . . [their] mission. . . [by conducting] . . . a Joint Mission Analysis (JMA) in collaboration with five theater CINCs.”³¹ The power and effect of the JMAs should not be underestimated. As Commander, SOCOM, General Lindsay’s leadership and outreach through the JMAs provided “the confidence in their organization so that the other CINCs would use SOF in the special and

appropriate ways.”³² Through the rigorous JMA process, SOCOM took a global mission, sought coordination as well as integration with theater commands, and organized a combatant command structure that is responsive across a range of mission areas.

The current state of training and integrating space forces and USPACOM forces to achieve greater USPACOM readiness is satisfactory. However, the training could be better. Currently, the training is episodic and centered on major component-level and above exercises.³³ The space superiority training objectives are often not well understood among the joint training audiences and de-linked from effective integration with major portions of training events as well as other theater components conducting training. Furthermore, no standardized process for analysis across components exists to gather observations from training participants and formulate lessons learned that could be passed to theater components for further integration with their training plans. In order to maximize space operations training to increase readiness, USPACOM must develop an advanced training construct linking space superiority training to overall theater training.³⁴

The Defense Science Board research offers a potential way ahead. The importance of effective advanced training is critical to force readiness. In a 2002 Defense Science Board report to the Secretary of Defense, the board

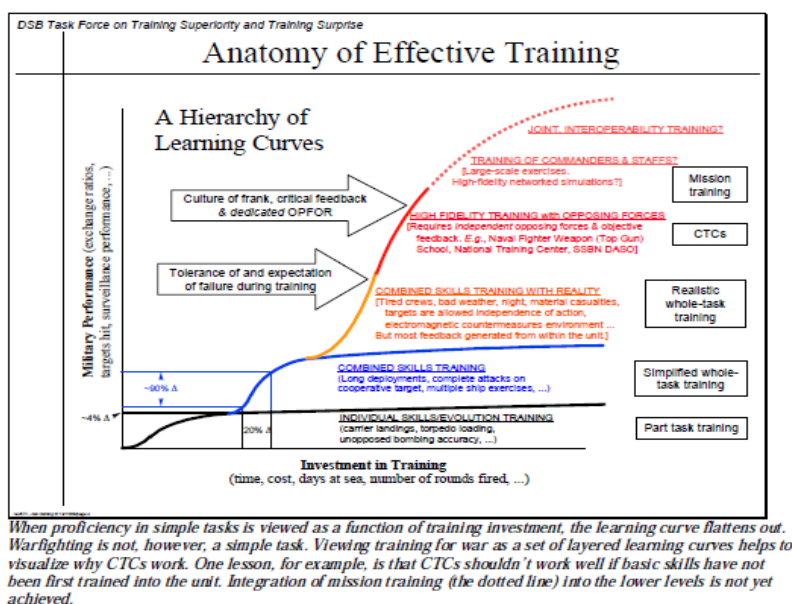


Figure 6 Anatomy of Effective Training³⁵

noted “. . .warfare is a complex task and training for it involves a stacked set of learning curves, each springboarding off the levels below it (illustrated in Figure 6).”³⁶

Not only does the Defense Science Board methodology provide a building block approach to advanced training, the methodology also serves as a ‘guide’ for commanders to assess readiness prior to and after training. In short, the methodology noted above, when combined with measures of effectiveness developed by force providers, accomplishes a critical task of advanced training—a measurable approach to developing “a high degree of first battle competency.”³⁷ The net effect of advanced training is a force prepared for the challenges of the modern battlefield. Consequently, USPACOM must re-look the current advanced training architecture in place for joint forces and determine if joint forces have the requisite competency for the challenges posed by nations with “. . .the ability to jam, blind, or otherwise disable satellites and their terrestrial support infrastructure.”³⁸

ANALYTICAL CONCLUSIONS

Pacific Command remains a command focused on maritime and air operations. Given the area of responsibility, as well as the forces under Pacific Command and the factors of time and space the focus is understandable, but incomplete. Focus drives thinking and thinking drives planning. In light of PRC counterspace advances, Pacific Command’s focus must expand to include the space domain as a contested environment.³⁹ Consequently, Pacific Command should meet the challenges of a contested space domain by shaping the operational environment with an integrated space superiority framework.

Furthermore, USPACOM theater campaign planning is not well served by the current anti-access thought. In short, the current thinking is inadequate for USPACOM’s needs. A 2007 RAND report notes “despite high-level interest in anti-access and the term’s increasing use in

U.S. defense policy documents, no official definition of either „antiaccess’ or an „antiaccess strategy’ exists.”⁴⁰ In fact, the definition presented by RAND falls short of including or considering the space domain and focuses primarily on air and maritime examples.⁴¹ Again, focus drives thinking and thinking drives planning. Yet, by not considering all the domains in planning, a blind spot is created for theater campaign planners.

However, some might argue that air and maritime forces are the predominant forces in the Pacific Command area of responsibility. The space forces, and by extension access to the space domain, are only enablers. Consequently, the current anti-access concept is complete. Given the current force-levels and the factors of time and space unique to Pacific Command as well as critical operational functions such as command and control and intelligence with their attendant space support needs, the access to and utilization of the space domain is critical to Pacific Command. As noted earlier, focus drives thinking and thinking drives planning. If the focus is not on access to all domains at the disposal of the combatant commander, thinking and planning will not be inclusive—Partnership, Presence and Readiness will remain predominantly focused on air and maritime. The focus needs to evolve to include the space domain as a contested domain.

With respect to military to military relationships, the current military space to military space relationships established across USPACOM remain disparate. On the high end of integration, the U.S.-Australia military space to military space relationship serves as a model. For example, the U.S. and Australia recently partnered “in exercise Talisman Saber 2009, their largest combined exercise.”⁴² Talisman Saber is designed to enhance “Joint Combined Training Capability.”⁴³ In fact, U.S.-Australian military space to military space relationships extends to persistent tactical-level relationships, inside and outside of USPACOM’s AOR.

However, the U.S.-Japanese military space to military space relationship remains in the developmental stages but presents much promise. With recent changes in the Japanese law, the possibility of greater military space to military space relationships comes closer to reality.⁴⁴ On 9 September 2009, Peter Brown of AsiaTimes reported “Japan's new Basic Law for Space Activities or simply Basic Space Law (BSL) passed the Diet (parliament) in 2008, and in mid-2009, a new Basic Space Plan was completed. As a result, Japan's government is now able to fund military space activities, ending a ban on such activities that lasted 40 years.”⁴⁵

Yet, many argue that foreign governments wish to distance themselves from direct military to military involvement with the U.S. vis-à-vis the PRC. However, the military space to military space relationships need not be perceived as confrontational. Using the TSD framework for example, military space to military space activities can be established to further accomplish the priorities for which TSD was established.⁴⁶ Furthermore, Australia, Japan and the U.S. all have a stake in the peaceful integration of the PRC while maintaining readiness. The disparate efforts require a framework from which to demonstrate a more credible and effective effort in the space domain and consequently support USPACOM. TSD is a possible vehicle for this framework.

USSTRATCOM's span of missions poses certain challenges to effective theater campaign planning. Due to an expansive mission set compounded with the challenge of supporting all Combatant Commanders, USSTRATCOM lacks a persistent theater presence in USPACOM—a persistent presence critical to shaping focus which in turn causes changes in thinking and planning. As noted earlier, USSTRATCOM remains organized around functional mission sets vice balancing functional mission set organization with theater presence. In order to shape the focus in USPACOM, USSTRATCOM requires a persistent presence. Yet

USSTRATCOM might be insufficiently manned to establish a presence in PACOM's area of responsibility and execute other Unified Command Plan taskings.

However, other globally focused functional combatant commands, like Special Operations Command, have established a theater presence while retaining the ability to act globally.⁴⁷ The Special Operations Command model serves as a point of departure, not the solution. Like Special Operations Command, USSTRATCOM needs to reach out and assess combatant command needs.⁴⁸ Once combatant command needs are understood, an in-theater organizational structure, if required, could be developed to better support geographic combatant commanders. Some combatant commanders might be satisfied with the current support. However, if an in-theater presence were required, a recommended command relationship might include a subunified theater component model or a standing joint task force to support theater campaign planning as an initial step, then developing into a subunified theater component, as appropriate.

As reported by the GAO and the Schlesinger reports, the current USSTRATCOM organizational structure is not working. This point is further underscored when one examines the critical need for USSTRATCOM expertise and presence in USPACOM theater campaign plan development and execution—expertise and presence that just is not there. Consequently, critical elements of a space superiority framework, like military space to military space relationships and advanced training concepts are lacking.

With respect to training, the current advanced training construct for air, land and sea forces is well understood and robust in scope as well as integration. Currently, air, land and sea forces enjoy a well established level of training at both the tactical and operational levels. On the other hand, the space operations' training is extremely nascent. Additionally, the majority of the

training events to date occur solely at the operational level vice an integrated operational level to tactical level training event.⁴⁹

The integration of space forces in theater training remains a challenge. However, one may argue that space operations are routinely integrated into theater exercises—which is correct. An established process does exist to support theater initial planning conferences, mid-planning conferences and final planning conferences. The greatest challenge to effective integration of space forces lies in two areas: limited resources to train with and competing exercise priorities across combatant commands.

While space operations are integrated in theater exercises, an established approach to develop sustained theater force readiness through advanced training is not as mature as required given the current threat environment. The lack of maturity centers on the fact that no articulated advanced training construct exists across all forces, either at USPACOM or USSTRATCOM. Consequently, when one uses the DSB's "Anatomy of Effective Training" as a guide, air, land, sea and space forces occupy different locations on the "hierarchy of learning curves."⁵⁰ The challenge for USPACOM is to partner with Strategic Command to develop an advanced training construct that moves all joint forces up the vertical axis, thus increasing the overall readiness of forces in theater.

Consequently, analysis of the USPACOM situation underscores the need to establish a space superiority framework to better support USPACOM theater campaign objectives and imperatives. The space superiority framework allows both USPACOM and USSTRATCOM to focus efforts and meet established Commander, Pacific Command intent. Without a space superiority framework, efforts will continue to lack focus and integration as well as fall short of

the mark in delivering long-term results for USPACOM in terms of Partnership, Presence and Readiness.⁵¹

RECOMMENDATIONS

The initial recommendations to begin moving toward a space superiority framework for USPACOM fall along three mutually supporting lines of effort: doctrine, organization and training. By maturing these areas, USSPACOM and USSTRATCOM move closer to attaining the necessary space superiority framework required to meet the challenges found in the USPACOM area of responsibility.

As noted by the experts at RAND, the Department of Defense lacks “an official definition of either ‘anti-access’ or an ‘anti-access strategy.’”⁵² Consequently, theater campaign planners are challenged with devising comprehensive strategies to counter such realities, without the benefit of doctrinal concepts. Additionally, the historical focus of USPACOM tilts toward a pre-disposition to color anti-access as solely focused on air and maritime forces. The result is an incomplete plan not accounting for anti-access of the space domain.

Thought on anti-access concepts needs to evolve and joint doctrine, in particular Joint Publication, 1-02, *Department of Defense Dictionary of Military and Associated Terms*, needs to incorporate a definition of anti-access. Furthermore, applicable doctrine documents such as Joint Publication 3-0, *Joint Operations* and Joint Publication, 5-0, *Joint Operation Planning*, need to capture operational art best practices to counter anti-access strategies. To begin the process, a recommended definition for anti-access is “The ability to utilize elements of national power-- diplomatic, informational, military or economic--to effectively counter the use of the air, land, sea, space or cyber domains.” With an established definition in place, theater campaign planners

must now address all domains. With a working definition of anti-access, the relevance of a space superiority framework becomes more apparent to the operational planner.

In parallel with the recommendations identified above, key consideration needs to be given to incorporating theater campaign planning considerations in Joint Publication 3-14, *Space Operations*. Specifically, Chapter V, Planning needs to consider essential elements of theater security cooperation planning. For example, the chapter needs to identify the processes for linking space activities to the supported commander's theater campaign plan objectives. Furthermore, Chapter V falls short on discussion of phasing. Specifically, the chapter mentions phasing in passing: "in staff estimates, the planners examine their functional specialties to identify the role and contributions of space forces in the various phases of the campaign."⁵³ The chapter needs to be modified to identify recommended space operations activities by phase. Consequently, joint space doctrine would more completely reflect the ways and means by which space operations can be successfully integrated into theater campaign planning across all phases of military operations to achieve combatant commander ends.

With respect to organization, theater campaign planners need to develop an organizational structure that integrates USSTRATCOM and USPACOM partnership efforts. In order to do this, USPACOM should leverage the TSD as a vehicle to further military space to military space relationships among Australia, the U.S. and Japan. Under USSTRATCOM, in coordination with USPACOM, for example, the Joint Functional Component Commander (JFCC)-Space might develop a planning cell comprised of Australian, Japanese and U.S. officers to support USPACOM efforts.

In order to be relevant and measureable, the above efforts need to be linked to the already identified USPACOM objectives and imperatives for Partnership and Presence. In so doing,

theater campaign planners ensure military space to military space efforts remain focused. Furthermore, the linkage to objectives and imperatives allows military space to military space progress to be assessed for improvement by both USSTRATCOM and USPACOM.

The organizational relationship between USPACOM and USSTRATCOM underpins the success of the entire space superiority framework effort. Without adequate organizational structure, the effort will encounter significant challenges. In close coordination with Commander, USPACOM, Commander, USSTRATCOM should establish a joint task force designed to plan and integrate space superiority framework efforts such as military space to military space relationships and advanced theater training standards.

For the joint task force to be effective, USSTRATCOM needs to first establish a JMA team to determine the level of support required by Pacific Command.⁵⁴ Pending the results of the assessment, the joint task force would likely lead the integration of the space superiority framework through support of theater security cooperation planning and advanced training integration. The joint task force would be located forward at H.Q. USPACOM and remain in direct support of USPACOM theater campaign planners. The operational control of the joint task force would reside with Commander, JFCC-Space.

To support advanced training across the theater, the USSTRATCOM established joint task force would partner with USPACOM and subordinate components to develop theater training standards by component. The training standards developed in concert with component leadership would focus on operating in a contested space domain. The measure of the joint task forces' success and the success of the advanced training would be assessed against Commander, USPACOM objectives and imperatives for readiness.

After a period of time, USSTRATCOM could expand on and modify the identified framework to better support USPACOM. However, USSTRATCOM also needs to consider exporting the space superiority framework concept to other geographic combatant commanders. The space superiority framework needs to be tailored to each geographic combatant commander's area of responsibility. Key areas to review when tailoring the framework are: evaluation of the current theater threats to the space domain; critical operational functions utilizing space capabilities; and consideration of operational factors of time and space, to name a few.

By taking the space superiority framework to other geographic commanders, USSTRATCOM expands the supporting and integrating architecture vital to the commands' success. Additionally, USSTRATCOM establishes a vital command presence in geographic combatant command areas of responsibility—a presence necessary to foster credibility at the theater campaign planning table.

With the space superiority framework, geographic as well as functional combatant commanders leverage a focused concept tailored to meet the needs of theater campaign plan objectives and imperatives. As illustrated in figure 7, the framework bounds the

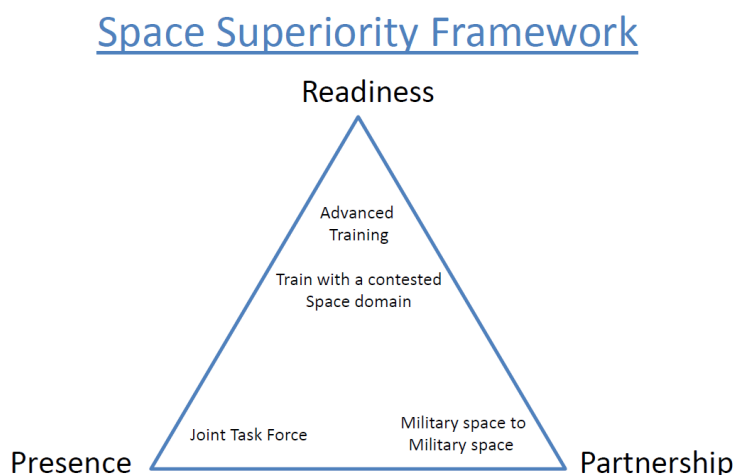


Figure 7 Space Superiority Framework⁵⁵

interrelated activities necessary to meet those objectives and imperatives while allowing for the flexibility to increase or decrease emphasis to meet future objectives and imperatives.

Furthermore, the framework links the geographic combatant commander with the functional combatant commander increasing effective integration during theater campaign planning.

Through the application of the framework, both geographic and functional combatant commands achieve unity of effort.

CONCLUSION

Theater campaign plans are the foundation for the accomplishment of theater objectives across the range of military operations. In order for theater campaigns to be complete, planners must consider all domains impacting theater operations—air, land, sea and space. By doing so, theater campaign planners ensure completeness of the plan. Furthermore, theater campaign planners also discover key supporting and supported relationships among functional and geographic combatant commanders. With the relationships identified, campaign planners begin to develop key tasks necessary to support the supported geographic combatant commander's objectives and imperatives.

This paper serves to focus attention on a critical seam in theater campaign planning. The answers are not simple and require dialogue between combatant commands. From increased dialogue, theater campaign planners will realize that their planning requires a framework to focus theater efforts. The space superiority framework identified above serves as a point of departure for others to consider and evaluate as well as improve upon. The space superiority framework also serves as a starting point for USPACOM and USSTRATCOM to begin development of efforts to better support the Commander, USPACOM through accomplishment of identified theater objectives and imperatives.

END NOTES

¹ U.S. President, The U.S. National Space Policy (31 August 2006), www.ostp.gov/galleries/default-file/Unclassified%20National%20Space%20Policy%20--%20FINAL.pdf (accessed 20 August 2009).

² Ibid, pg 1.

³ U.S. Department of Defense, Office of the Secretary of Defense, *Annual Report to Congress: Military Power of the People's Republic of China*, 2009, www.defenselink.mil/pubs/pdfs/China_Military_Power_Report_2009.pdf (accessed 26 July 2009).

⁴ Ibid, pg 52.

⁵ Senate, *Annual Threat Assessment of the Intelligence Community for the Senate Select Intelligence Committee*. 2009 111th Congr. 1st Sess., 2009, pg 23.

⁶ Commander, U.S. Pacific Command. United States Pacific Command Strategy: Partnership, Readiness, Presence (Camp H.M. Smith, Hawaii: Headquarters, United States Pacific Command, 2 April 2009), 2. www.USPACOM.mil (accessed 28 August 2009).

⁷ U.S. Office of the Chairman of the Joint Chiefs of Staff. *Joint Operation Planning*. Joint Publication (JP) 5-0 (Washington, D.C.: CJCS, 26 Dec 2009), GL-6.

⁸ Commander, U.S. Pacific Command. United States Pacific Command Strategy: Partnership, Readiness, Presence. (Camp H.M. Smith, Hawaii: Headquarters, United States Pacific Command, 2 April 2009), 3. www.USPACOM.mil (accessed 28 August 2009).

⁹ Cliff et al., *Entering the Dragon's Lair: Chinese Antiaccess Strategies and Their Implications for the United States*. (Santa Monica, CA: RAND, 2007).

¹⁰ Figure created by author.

¹¹ This chart developed from U.S. Office of the Chairman of the Joint Chiefs of Staff. *Doctrine for the Armed Forces of the United States*. Joint Publication (JP) 1, Incorporating Change 1. (Washington, D.C.:CJCS, 20 Mar 2009), III-14. http://www.dtic.mil/doctrine/jel/new_pubs/jp1.pdf (accessed 14 Sep 2009) and U.S. Office of the Chairman of the Joint Chiefs of Staff. *Joint Operations*. Joint Publication (JP) 3-0, Incorporating Change 1(Washington, D.C.:CJCS, 13 Feb 2008), V-4.

¹² Robert Lawrence Kuhn. *The Man Who Changed China: The Life and Legacy of Jiang Zemin* (New York, New York: Crown Publishers, 2004), 671.

¹³ This figure was developed through research of the following sources: Kuhn, *The Man Who Changed China: The Life and Legacy of Jiang Zemin*, pgs 191, 403, 542 and 545. Ashton Carter and William Perry, *Preventive Defense: A New Security Strategy for America* (Washington,

D.C.: Brookings Institution Press, 1999) pgs 92 and 97-98; Additionally, Clara Moskowitz's article "Liftoff! China Launches Third Manned Space Flight," *SPACE.COM*, 25 September 2008, <http://www.space.com/missionlaunches/080925-zhenzhou7-launch-wrap.html> (accessed 15 September 2009); And Craig Covault's "Chinese Test Anti-Satellite Weapon," *AviationWeek.com*, 17 January 2007, http://www.aviationweek.com/aw/generic/story_channel.jsp?channel=space&id=news/CHI01177.xml (accessed September 2009).

¹⁴ Robert Lawrence Kuhn. *The Man Who Changed China: The Life and Legacy of Jiang Zemin* (New York, New York: Crown Publishers, 2004), 546.

¹⁵ U.S. Department of Defense. Office of the Secretary of Defense. "Annual Report to Congress: Military Power of the People's Republic of China, 2009." www.defenselink.mil/pubs/pdfs/China_Military_Power_Report_2009.pdf (accessed 26 July 2009), 14.

¹⁶ U.S. Embassy, Canberra. "AUSMIN." <http://canberra.usembassy.gov/irc/us-oz/ausmin.html> and <http://www.dfat.gov.au/geo/us/ausmin/index.html> (accessed 25 August 2009).

¹⁷ Tow et al., "Assessing the Trilateral Strategic Dialogue," *The National Bureau of Asian Research*, Special Report #16, December 2008, www.nbr.org/Publications/issue.aspx?id=01dce732-54b8-423e-9973-a87ee499d4d6 (accessed 25 August 2009).

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¹⁹ Interview conducted with Mr. Joseph Rouge via telephone on 14 September 2009.

²⁰ U.S. Department of State, Bureau of Public Affairs, Office of the Spokesman. "Australia-United States Ministerial Consultations 2009 Joint Communiqué," 3 <http://www.state.gov/r/pa/prs/ps/2009/04/121552.htm> (accessed 25 August 2009).

²¹ Ibid, 2.

²² Interview and correspondence, with Dr. Sheldon Simon a noted scholar of the Asian and Pacific region as well as the Trilateral Strategic Dialogue efforts.

²³ Tow et al., "Assessing the Trilateral Strategic Dialogue." *The National Bureau of Asian Research*, Special Report #16, December 2008, 53-54 www.nbr.org/Publications/issue.aspx?id=01dce732-54b8-423e-9973-a87ee499d4d6 (accessed 25 August 2009).

²⁴ Leo Lewis. "Change in law launches Japanese military into space." *Timesonline*, 10 May 2008, <http://www.timesonline.co.uk/tol/news/world/asia/article3905247> (accessed 14 September 2009) 1; STRATFOR, "Japan: The Military Exploitation of Space." *STRATFOR.COM*

http://www.stratfor.com/analysis/20090719_japan_military_exploitation_space. (Accessed 27 August 2009), 1.

²⁵ Ibid.

²⁶ U.S. Government Accountability Office, *Additional Actions Needed by U.S. Strategic Command to Strengthen Implementation of Its Many Missions and New Organization*, 8 www.gao.gov (accessed 25 August 2009).

²⁷ Ibid, 5.

²⁸ U.S. Department of Defense. Office of the Secretary of Defense, *Report of the Secretary of Defense Task Force on DoD Nuclear Weapons Management: Phase II, Review of the DoD Nuclear Mission, December 2008*,” 56, <http://www.defenselink.mil/pubs/pdfs/PhaseIIReportFinal.pdf> (accessed 15 Sep 09). Note, the above title is the “long title of the report.” The report is commonly referred to and recognized as the Schlesinger report. Consequently, Schlesinger report was used for ease of recognition by the reader.

²⁹ Bryan D. Brown, “U.S. Special Operations Command: Meeting the Challenges of the 21st Century.” *Joint Forces Quarterly*, Issue 40, 1st Quarter 2006, 40, www.dtic.mil/doctrine/jel/jfq_pubs/4008.pdf (accessed 27 August 2009).

³⁰ John T. Fishel, “Little Wars, Small Wars, LIC, OOTW, The GAP, and Things that Go Bump in the Night.” *Low Intensity Conflict & Law Enforcement*, Vol. 4. No.3 (Winter 1995): 387.

³¹ Ibid.

³² Ibid.

³³ Comments based on the author’s experience through participation in several theater-level exercises in multiple combatant command areas of responsibility over the last eleven years.

³⁴ Ibid.

³⁵ Dr. Ralph Chatham and Dr. Joe Braddock. *Training Superiority and Training Surprise Final Report*. Defense Science Board Task Force on Training Superiority and Training Surprise. Washington, D.C.: Department of Defense, Defense Science Board, www.acq.osd.mil/dsb/reports/trainingsuperiority.pdf (accessed 24 August 2009), pg. 12.

³⁶ Dr. Ralph Chatham and Dr. Joe Braddock. “Training Superiority and Training Surprise Final Report.” *Defense Science Board Task Force on Training Superiority and Training Surprise*. (Washington, D.C.: Department of Defense, Defense Science Board), 12 www.acq.osd.mil/dsb/reports/trainingsuperiority.pdf (accessed 24 August 2009).

³⁷ Barry D. Watts. “Clausewitzian Friction and Future War.” *McNair Paper 68* (Revised edition, August 2004), 6.

³⁸ U.S. Department of Defense. Office of the Secretary of Defense. “Annual Report to Congress: Military Power of the People’s Republic of China, 2009,” 14, www.defenselink.mil/pubs/pdfs/China_Military_Power_Report_2009.pdf (accessed 26 July 2009).

³⁹ The author first heard the concept of space as a contested domain during a United States Air Force Warfare Center Commander’s conference in October, 2007. General C. Robert Kehler was the guest speaker and posed the concept to the audience for consideration.

⁴⁰ Cliff et al., *Entering the Dragon’s Lair: Chinese Antiaccess Strategies and Their Implications for the United States*. 11.

⁴¹ Ibid.

⁴² U.S. Department of State, Bureau of Public Affairs, Office of the Spokesman. “Australia-United States Ministerial Consultations 2009 Joint Communiqué,” 3 <http://www.state.gov/r/pa/prs/ps/2009/04/121552.htm> (accessed 25 August 2009).

⁴³ Ibid.

⁴⁴ Peter J. Brown. “Japan’s next chapter in space begins.” *Asia Times Online*, 9 Sep 09, <http://atimes.com/atimes/Japan/KI09Dh01.html> (accessed 14 Sep 09).

⁴⁵ Ibid, 1.

⁴⁶ Conclusions based on interview and discussion with Dr. Sheldon Simon.

⁴⁷ Bryan D. Brown. “U.S. Special Operations Command: Meeting the Challenges of the 21st Century.” *Joint Forces Quarterly*, Issue 40, 1st Quarter 2006, 40, www.dtic.mil/doctrine/jel/jfq_pubs/4008.pdf (accessed 27 August 2009).

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⁵⁰ Dr. Ralph Chatham and Dr. Joe Braddock. “Training Superiority and Training Surprise Final Report.” *Defense Science Board Task Force on Training Superiority and Training Surprise*. (Washington, D.C.: Department of Defense, Defense Science Board), 12, www.acq.osd.mil/dsb/reports/trainingsuperiority.pdf (accessed 24 August 2009).

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⁵² Cliff et al., *Entering the Dragon's Lair: Chinese Antiaccess Strategies and Their Implications for the United States*. 11.

⁵³ U.S. Office of the Chairman of the Joint Chiefs of Staff, *Space Operations*, Joint Publication (JP) 3-14 (Washington, D.C.: CJCS, 6 January 2009), V-1, www.dtic.mil/doctrine/jel/new_pubs/jp3_14.pdf (Accessed 21 July 2009).

⁵⁴ John T. Fishel. "Little Wars, Small Wars, LIC, OOTW, The GAP, and Things that Go Bump in the Night." *Low Intensity Conflict & Law Enforcement*, Vol. 4. No.3 (Winter 1995) 387.

⁵⁵ U.S. Pacific Command. Commander, U.S. Pacific Command. United States Pacific Command Strategy: Partnership, Readiness, Presence. (Camp H.M. Smith, Hawaii: Headquarters, United States Pacific Command, 2 April 2009), 1. www.USPACOM.mil (accessed 28 August 2009).

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